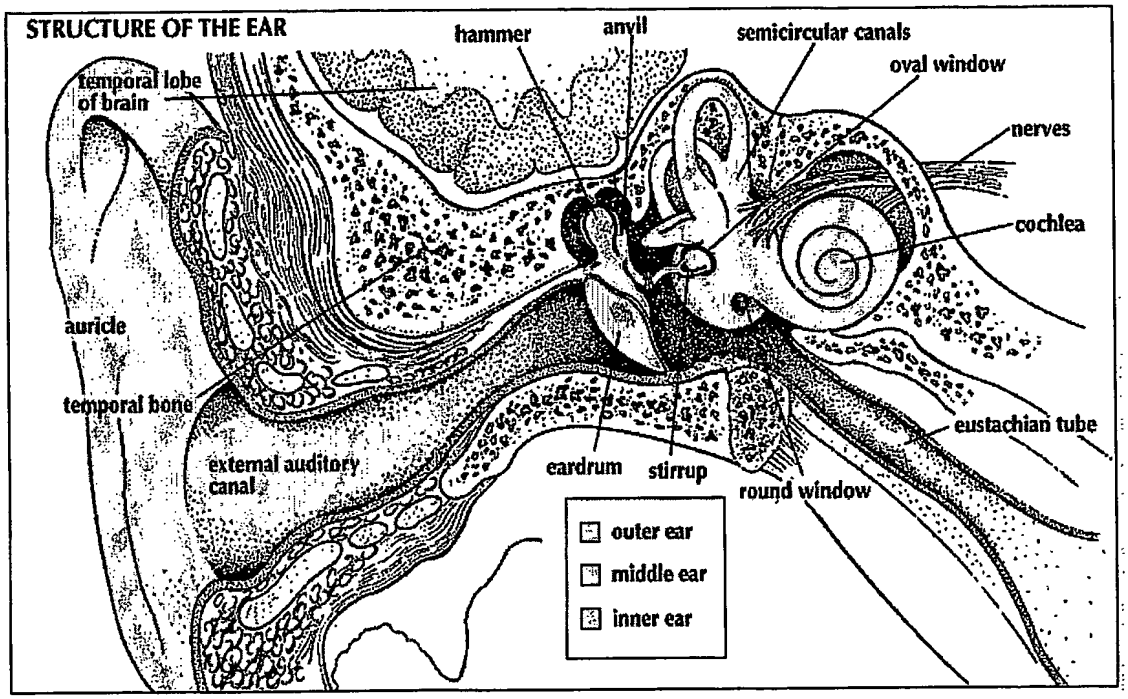
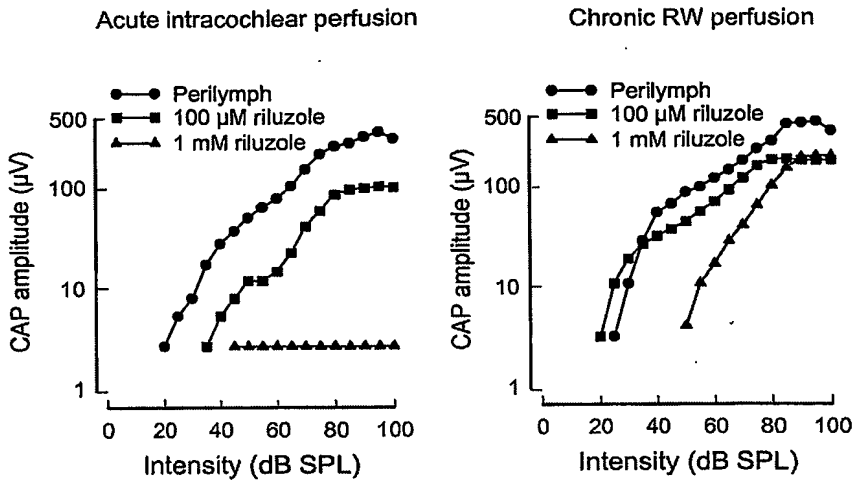


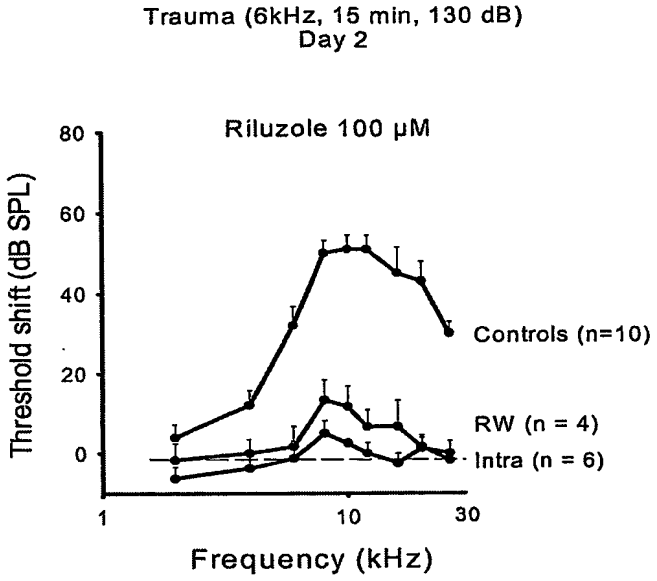
FIG.1



(A) (B)

Example 1: Comparative effect of acute intracochlear perfusion and chronic round window perfusion. These graphs represent the mean amplitude of the CAP as the function of the intensity of 8kHz tone burst stimulation. Mean threshold has been calculated from 5 different animals. Note that both acute intracochlear and chronic round window application of riluzole reduce the CAP amplitude in a dose-dependent manner. However, the effect was 10 times less potent when the drug was applied onto the round window.

FIG. 2



Example 2: Protective effect of riluzole on intense noise induced acoustic trauma.
CAP audiograms (threshold shifts as the function of tone frequency) were measured 2 days after 30 minutes of continuous sound exposure. Threshold shift was calculated as the difference in the recording before and 2 days after 6kHz continuous tone exposure. Shown are threshold shift recorded after 120 dB SPL exposure during 30 minutes in presence of artificial perilymph (red curve, control). Note the clear protection of 100 µM riluzole when either applied directly into the cochlea (blue curve, intra) or onto the round window (green curve, RW). "n" is the number of tested animals

FIG. 3

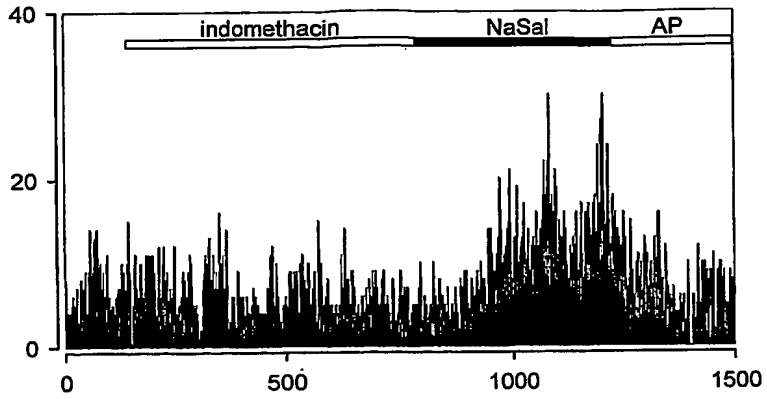


Fig 4A

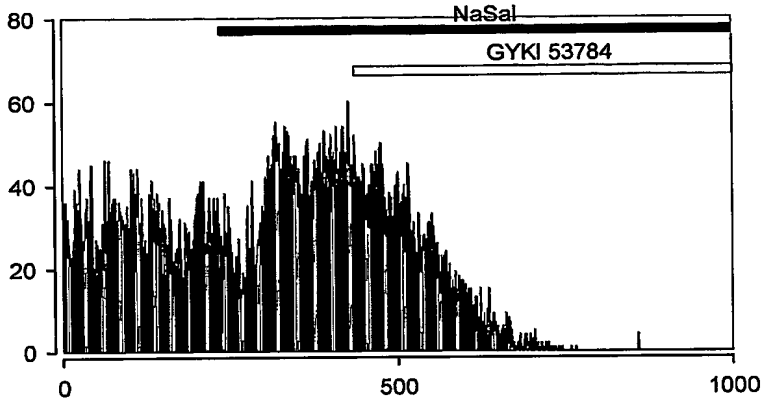


Fig 4B

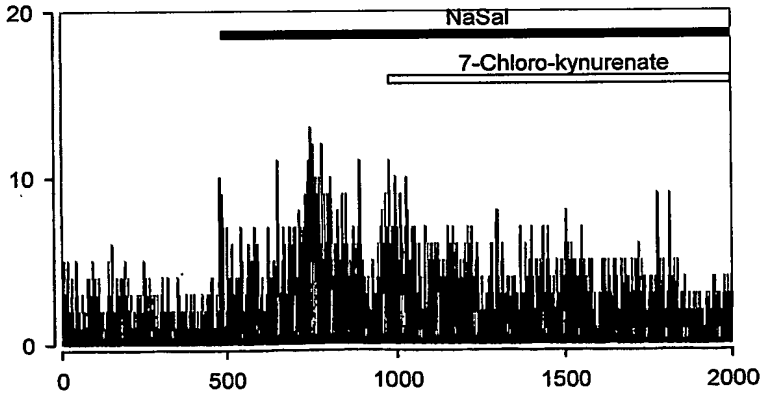


Fig 4C

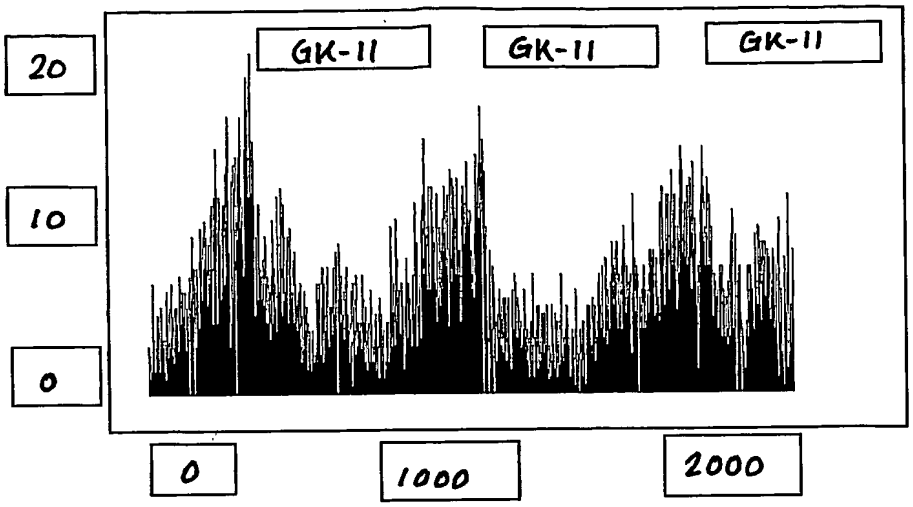
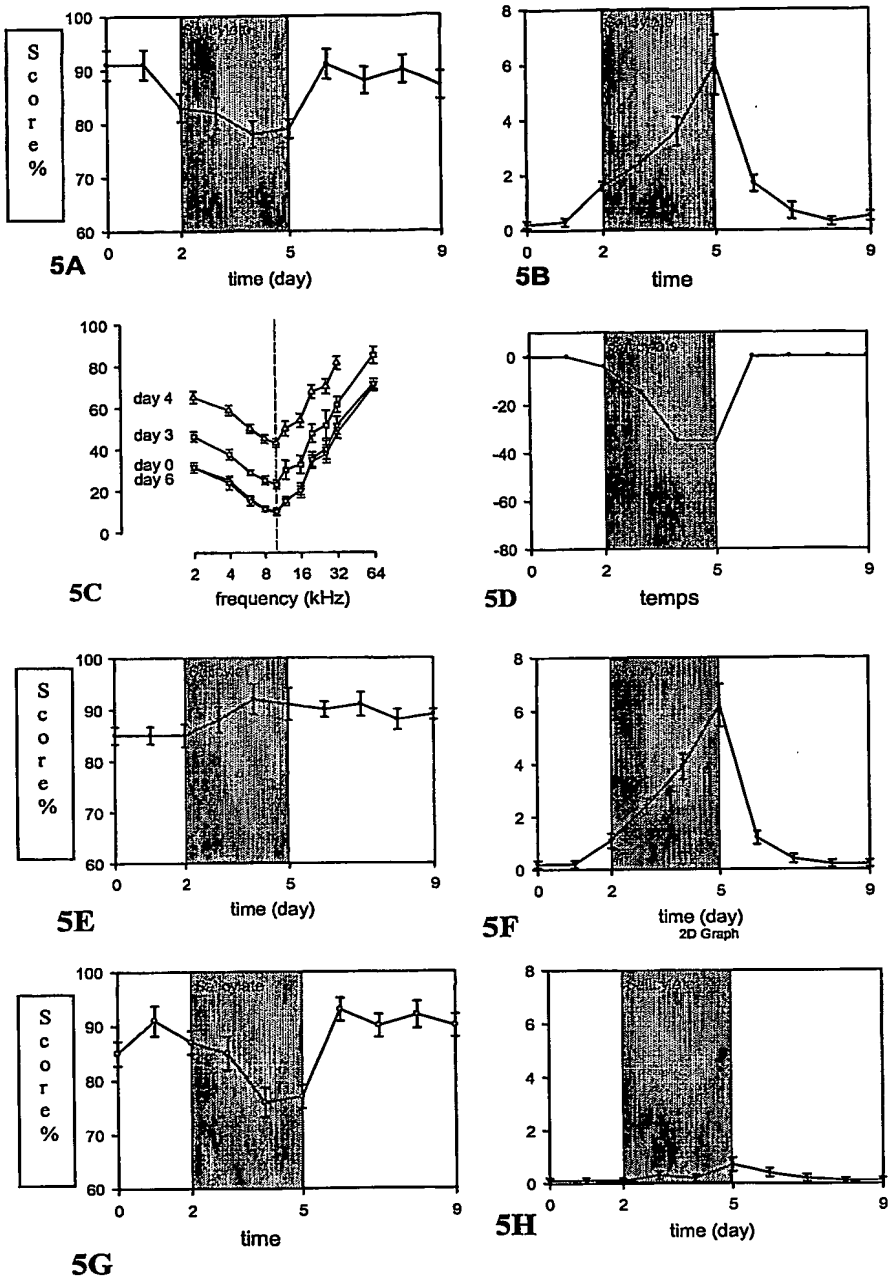


Fig 4D


Score %
time (day)
5A
time
5B
day 4
day 3
day 0
day 6
frequency (kHz)
5C
temps
5D
5E
5F
2D Graph
time
5G
5H

FIGS. 5A-H

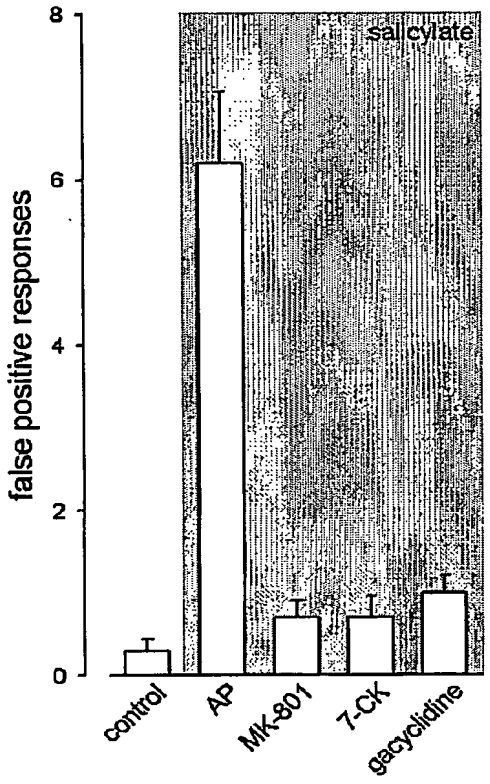


Fig 6. Comparative effects on NMDA antagonists on salicylate-induced tinnitus. Shown are the number of false positive responses measured at the end salicylate treatment (day 4) in animals with gelfoams bathed with artificial perilymph alone (AP, n=10) alone or MK-801 (10 μM, n=10), 7-chlorokynurenate (7-CK, 50 μM, n=10), or gacyclidine (50 μM, n=10). When compared with AP alone, local application of MK-801, 7-CK, or gacyclidine drastically reduced the occurrence of the false positive responses.